



www.VirginiaDOT.org

Public Information Meeting

## Route 50 STARS Safety and Operational Improvements Study

Falls Church, Fairfax County

**Monday, October 21, 2019**  
**6:30 p.m. to 8:30 p.m.**  
**Presentation starts at 7 p.m.**

Falls Church High School  
7521 Jaguar Trail  
Falls Church, VA 22042

### Public Information Meeting

Welcome to the Virginia Department of Transportation's (VDOT) public information meeting on concepts being studied to assess potential safety and operational improvements for three miles of Route 50 (Arlington Boulevard) between Jaguar Trail and Wilson Boulevard (Route 613). The concepts being studied include potential "Innovative Intersections" and improved traffic signal timing/operations, turn lane improvements, turn restrictions, access management and pedestrian enhancements.

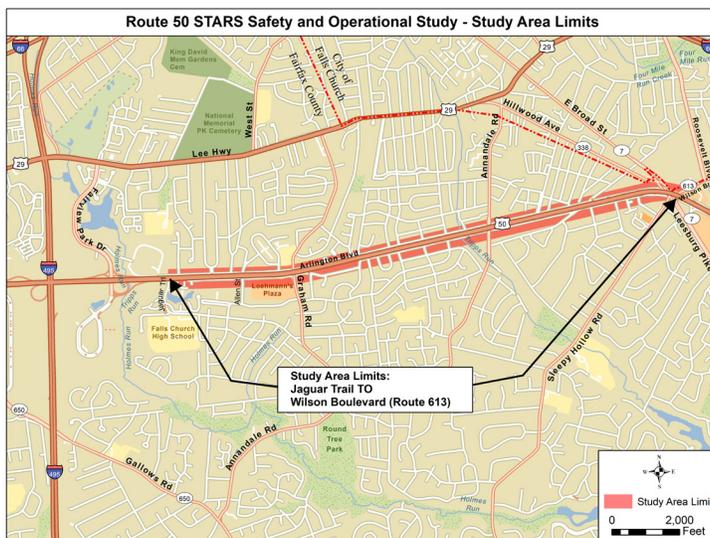
This meeting is being held to provide an opportunity for residents and organizations to give VDOT comments and/or suggestions on the study. A second public information meeting to present

potential recommendations will be held near the end of the study, which is set for completion in spring 2020.

VDOT representatives are here to discuss the concepts being studied and answer your questions. **Residents and travelers of the corridor in the study area are asked to take a short online survey** that is now available for responses at **[www.virginiadot.org/route50fallschurchstudy](http://www.virginiadot.org/route50fallschurchstudy)**.

All comments received on this study will be reviewed and the final concepts based on public input will be made available on the VDOT study website.

### Study at a Glance



**Purpose:** Assess potential safety and operational enhancements for drivers and pedestrians.

**Lengths and Limits:** Three miles of Route 50 (Arlington Blvd) between Jaguar Trail and Wilson Boulevard (Route 613).

**Phase:** Study

**Begin Date:** June 2019

**Completion Date:** Spring 2020

**Cost:** \$280,000

## Study Overview

This study is assessing potential safety and operational improvements for three miles of Route 50 (Arlington Boulevard) between Jaguar Trail and Wilson Boulevard (Route 613).

Currently, this segment of Route 50 experiences severe congestion in the morning and evening peak periods.

The concepts studied will be developed based on public input and may include:

- Improved traffic signal timing and operations
- Turn lane improvements
- Turn restrictions
- Access management
- Pedestrian enhancements
- “Innovative Intersections”

## Civil Rights

VDOT ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, contact VDOT Civil Rights at 703-259-1775.

## Get Involved

VDOT will review and evaluate any information received as a result of the public information meeting. The comment sheet and brochure is provided to assist in making your comments. You may leave the sheet or any other written comments in the comment box, or mail your comments.

Residents and drivers of the corridor in the study area are asked to take a short online survey that is now available for responses at [www.virginiadot.org/route50fallschurchstudy](http://www.virginiadot.org/route50fallschurchstudy).

## Environmental Review

Potential environmental impacts will not be included as part of this study. When the operational concepts are finalized and carried forward into a future project design development, VDOT will coordinate with the appropriate federal, state and local agencies as part of the environmental review and approval process.

## Right of Way

Preliminary study concepts presented on the displays are conceptual and may change as the study and concepts are refined. Property owners would be informed of the exact location of any easements during the right of way acquisition process and prior to construction if projects should be developed as a result of this study.

Information about right of way purchase is discussed in VDOT’s brochure, “Right of Way and Utilities: Guide for Property Owners and Tenants.” Copies of this brochure are also available online at: [www.virginiadot.org/business/row-default.asp](http://www.virginiadot.org/business/row-default.asp).

Comments must be postmarked or delivered to VDOT by **October 31, 2019**. A second public information meeting to present potential recommendations will be held near the end of the study, which is scheduled for completion in spring 2020. Look for details on the study website.

All comments received on this study will be reviewed and the final concepts based on public input will be made available on the VDOT study website. Study information shared here, including a summary of comments received during the comment period will be available on the website mentioned above.

## Contact Information

**Primary Contact:**  
**Bobby Mangalath, P.E.**

Northern Region Operations  
Traffic Engineering

4975 Alliance Drive  
Fairfax, VA 22030

703-259-3238



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7521 Jaguar Trail

Falls Church, VA 22042

### COMMENT SHEET

**All comments are subject to public disclosure.**

Name (optional): \_\_\_\_\_

Address (optional): \_\_\_\_\_

Email (optional): \_\_\_\_\_

1. What are your major concerns that you would like to see incorporated into this study?

2. Please provide us with any additional information or suggestions that will assist VDOT in developing the final concepts of this study.

3. How did you hear about this meeting?

\_\_\_\_\_ Newspaper \_\_\_\_\_ Social Media \_\_\_\_\_ Website \_\_\_\_\_ Other \_\_\_\_\_

Please leave this comment sheet at the designated location, or mail your comments (postmarked by Oct. 31, 2019) to the addressee on the reverse side.

Fold Line

Postal Service  
will not  
deliver without  
a stamp

Virginia Department of Transportation  
Northern Virginia District  
Mr. Bobby Mangalath, P.E.  
4975 Alliance Drive  
Fairfax, VA 22030

Fold Line



# ROUTE 50 STARS SAFETY AND OPERATIONAL IMPROVEMENTS STUDY (FALLS CHURCH, FAIRFAX COUNTY)

A Study undertaken as part of VDOT's **S**trategically **T**argeted and **A**ffordable **R**oadway **S**olutions (STARS) Program

Allison Richter, VDOT, Northern Virginia District

Terrell Hughes, VDOT, Central Office, Transportation and Mobility Planning Division

October 21, 2019

Warren Hughes, ATCS, P.L.C., (Consultant to VDOT)

# Presentation Outline

1. **Introductions**
2. **Meeting Objectives**
3. **VDOT Strategically Targeted and Affordable Roadways Solutions (STARS) Program**
4. **Route 50 STARS Safety And Operational Improvements Study –**
  1. **Overview**
  2. **Existing Traffic and Safety Conditions**
  3. **Potential Improvements**
5. **Next Steps and Concluding Comments**

## 2. Objectives for this Public Information Meeting

- **Inform the public about this STARS study**
- **Present preliminary information on safety and traffic conditions within the Route 50 study area**
- **Solicit input from the public on existing safety and traffic issues**
- **Gather ideas to enhance safety and reduce congestion in the corridor**

**Your participation and feedback is essential to developing a solution that works for all!**

# 3. BACKGROUND ON VDOT'S STARS PROGRAM

Terrell Hughes, VDOT, Central Office, Transportation Mobility Planning Division

# STARS

**STARS is an Acronym for  
Strategically Targeted and  
Affordable Roadways Solutions**

**STARS is a program that was  
originally implemented by VDOT in  
2006 and has been continually  
refined to address safety and  
operational issues**

# What is the STARS program?

**Program to develop solutions to reduce crashes and congestion bottlenecks using a data-driven approach**

Crash hotspots  
Speed data  
Traffic Count data



Use this information together to identify corridors with safety and congestion challenges

**Overall goal of STARS is to develop solutions that can be funded and implemented**

# STARS Program Goals

- **Develop comprehensive, innovative transportation alternatives to relieve congestion bottlenecks and solve critical safety challenges**
- **Involve planners, traffic engineers, safety engineers, roadway designers, and local stakeholders**

## STARS Project Stakeholders



# Recent STARS Efforts Near the Study Area

- Route 50 (Lee Jackson Memorial Highway) Study (Ongoing)
- Route 28 and Dulles Toll Road/Dulles Greenway Study (Ongoing)
- Fairfax County Parkway and Franconia- Springfield Parkway (Funded)
- Dolley Madison Boulevard (Route 123) at Great Falls Street
- Sully Road (Route 28) at Braddock Road/ Walney Road



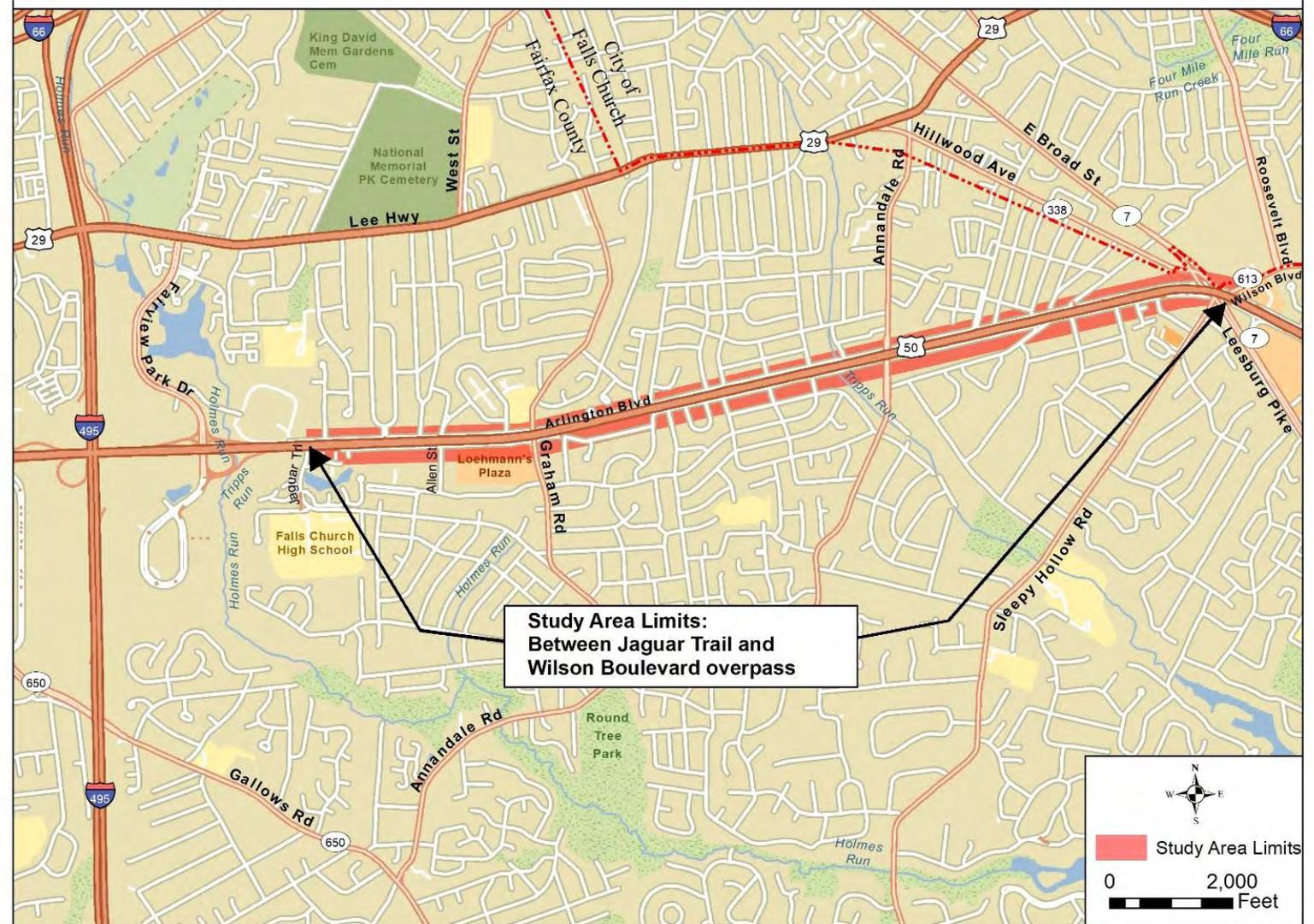
Popes Head Interchange Project

# 4. ROUTE 50 STARS SAFETY AND OPERATIONAL IMPROVEMENTS STUDY

Warren E. Hughes, PE, ATCS, P.L.C. (Consultant to VDOT)

# Study Area

**Arlington  
Boulevard  
(Route 50)  
between Jaguar Trail  
and the Wilson  
Boulevard Overpass  
(Route 613)**



# Issues



# Issues



# Elements of the Study

- **Traffic Data Collection**
- **Crash and Traffic Analysis**
- **Travel Forecasting**
- **Improvement Options Assessment**
- **Short Term and Long Term Alternatives**
- **Safety and Operations Analyses of Alternatives**
- **Cost Estimation for Preferred Alternatives**

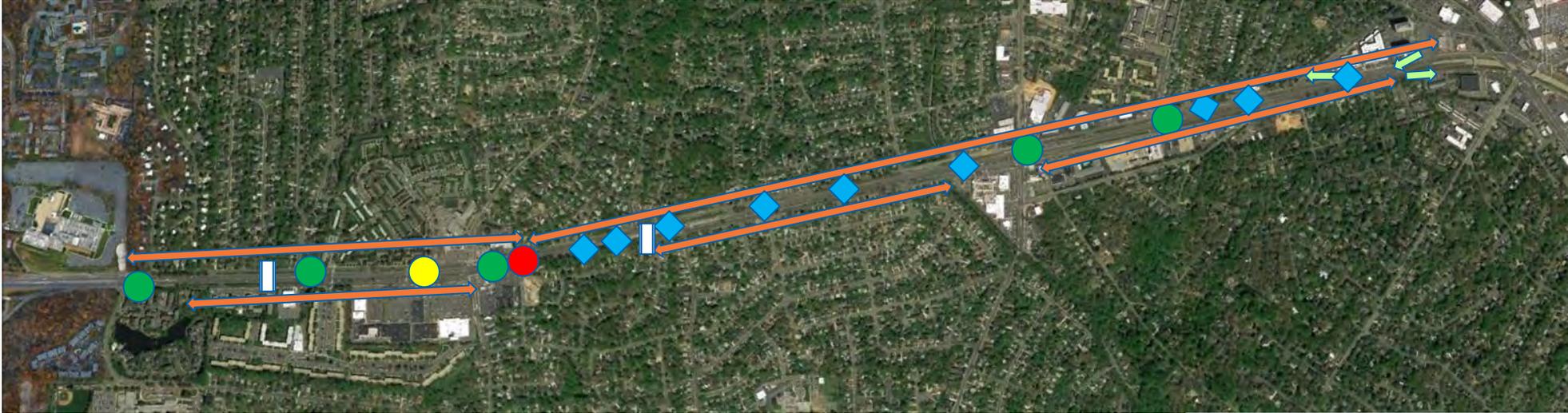


A faded background image of a busy multi-lane intersection with traffic lights and cars. A blue street sign above the traffic lights reads 'ARRANDALE RD'.

# EXISTING SAFETY AND TRAFFIC CONDITIONS



# Characteristics / Features of the Corridor



- ↔ Two-way frontage roads
- 3 slip ramps
- 5 signal-controlled intersections
- 1 signalized mid-block pedestrian crossing
- 1 emergency signal for Jefferson Fire Station
- ◆ 9 unsignalized intersections with median openings
- 2 unsignalized crosswalks across Route 50



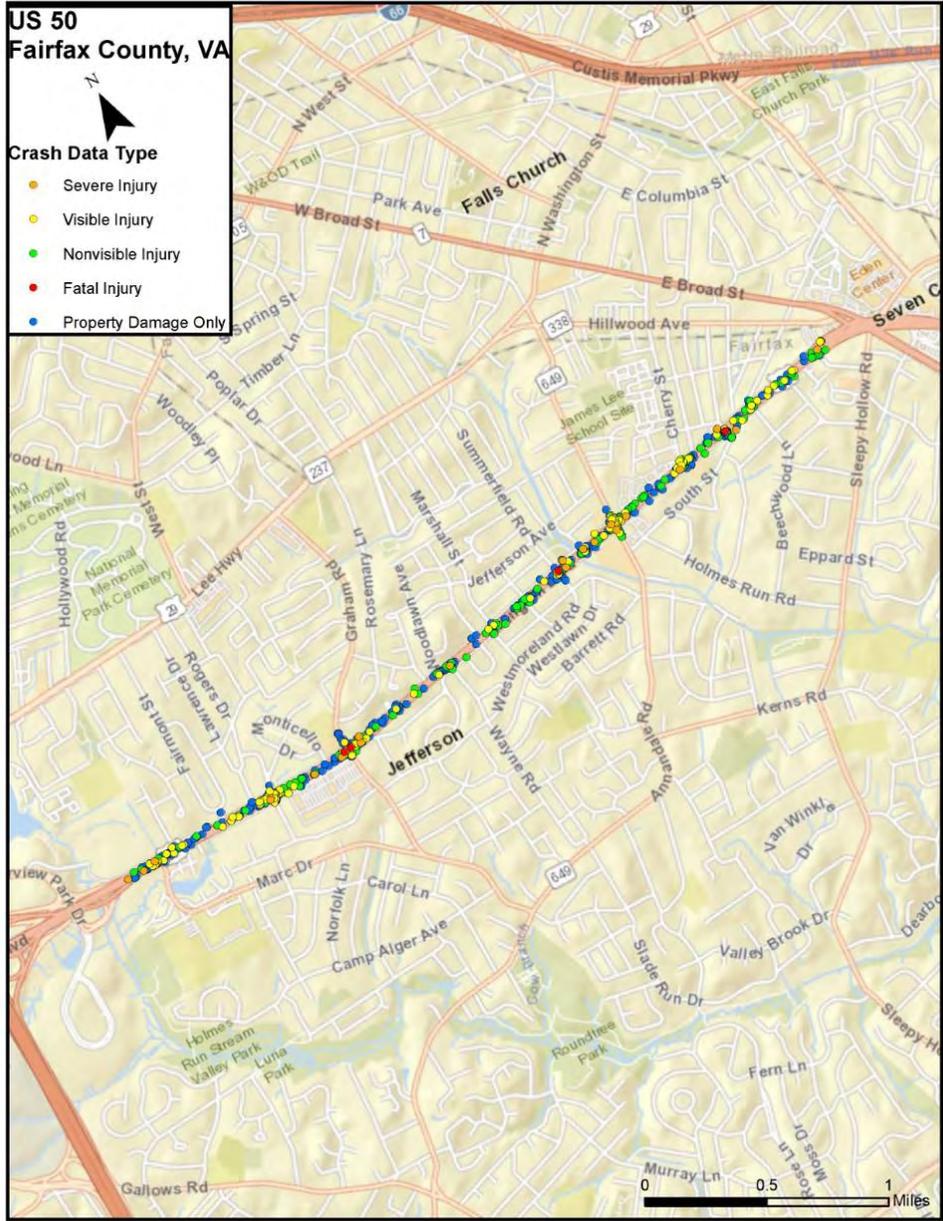
# Crashes Reported (from January 2013 to April 2019)



**Crashes will be evaluated by location, severity, type, time and circumstances to determine patterns, identify trends, examine contributing factors, and develop appropriate improvements**

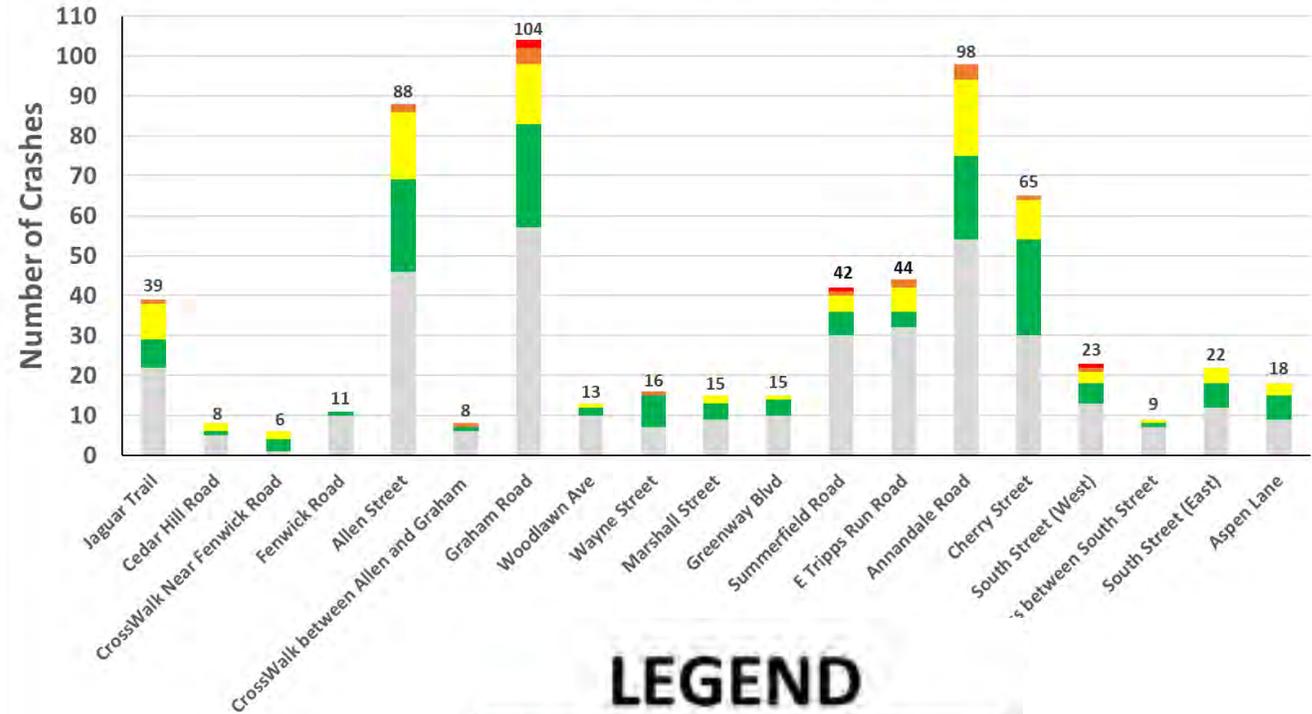
US 50  
Fairfax County, VA

- Crash Data Type
- Severe Injury
  - Visible Injury
  - Nonvisible Injury
  - Fatal Injury
  - Property Damage Only



# Crashes Reported On Route 50 by Intersection

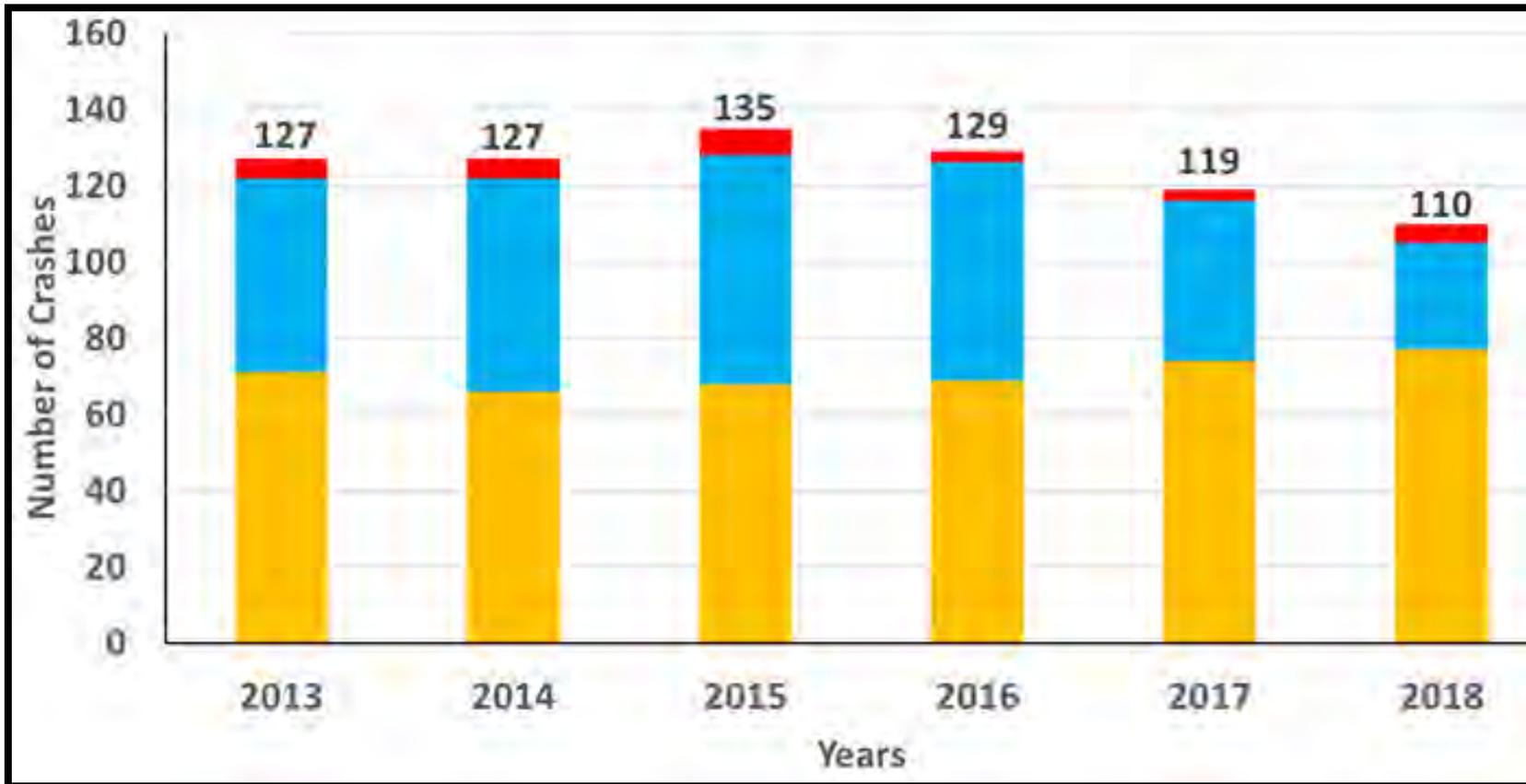
Reported Crashes on Route 50 by Intersections  
From January 2013 to June 2019



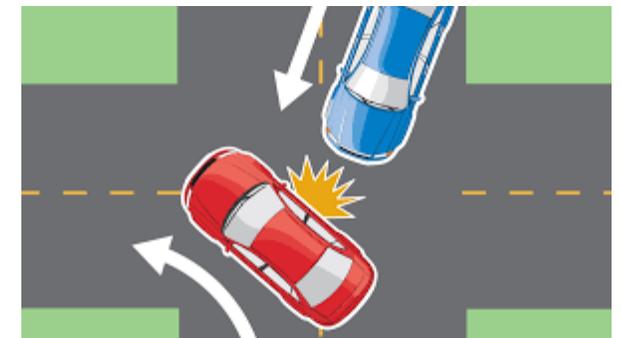
## LEGEND

- Fatal Crash
- A-Injury Crash
- B-Injury Crash
- C-Injury Crash
- Property Damage Only Crash

# Trend in Reported Crashes



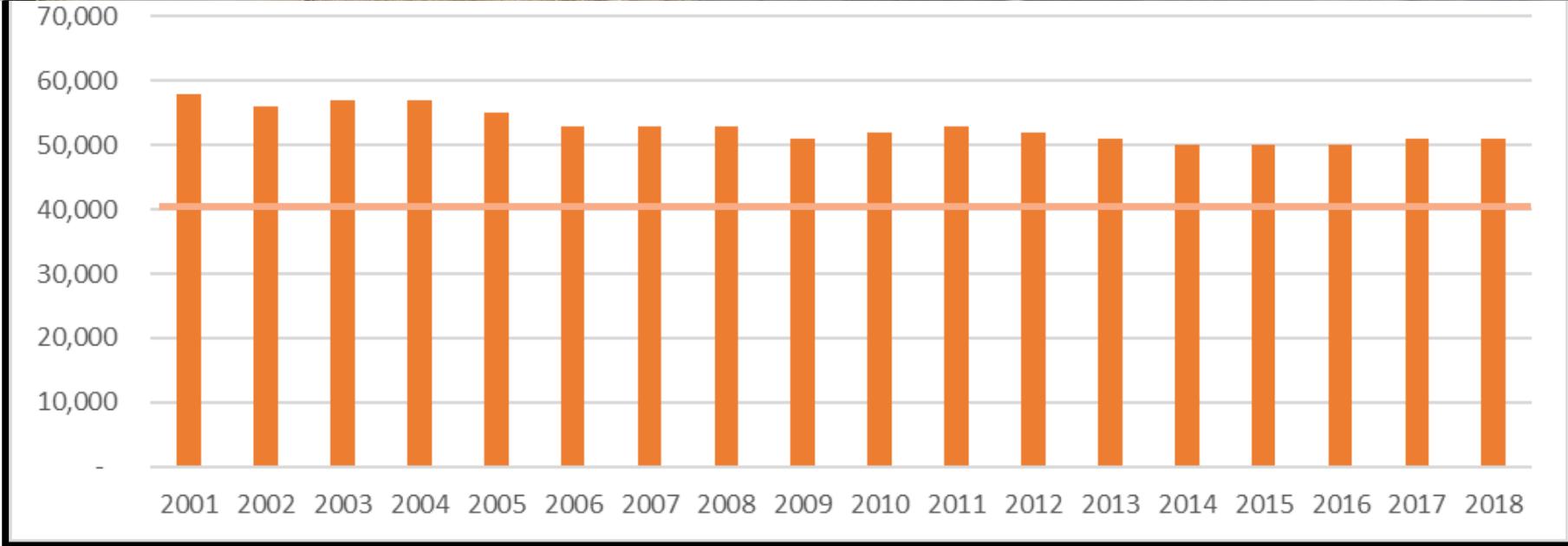
-  Fatal and Severe Crashes
-  Other Injury Crashes
-  Property Damage Only Crashes



# Average Daily Traffic Flows



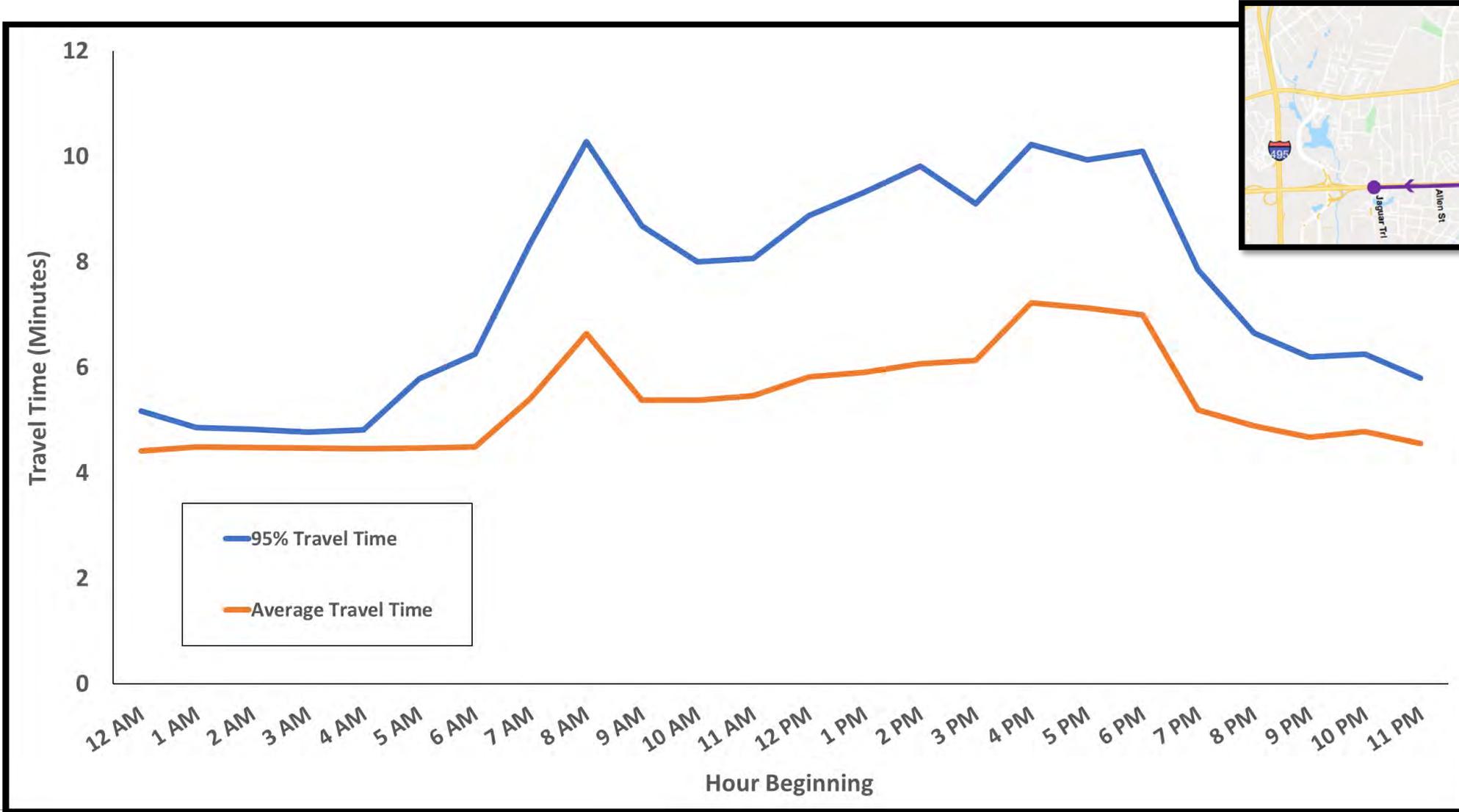
Vehicles  
per day



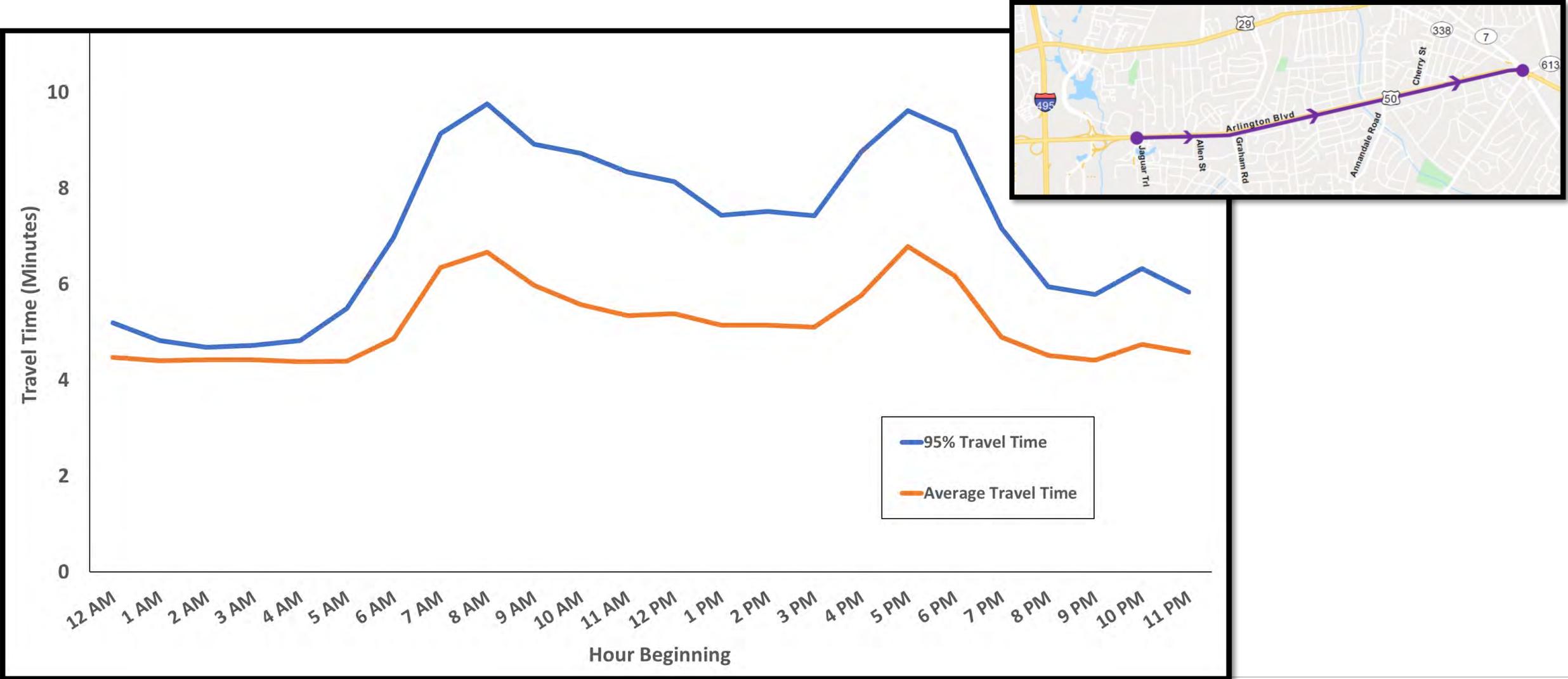
Design  
Capacity

YEAR

# Travel Times on WB Arlington Blvd / VA Route 50



# Travel Times on EB Arlington Blvd / VA Route 50



# Pedestrian Crossings

- 10 Crosswalks across Route 50
  - 6 at signalized intersections
  - 1 at signalized mid-block
  - 2 at unsignalized intersections
  - 1 at unsignalized mid-block

**12 pairs of Bus Stops; 60 Metro buses/day**



Route 50 and Woodlawn Avenue Intersection Improvement



A faded background image of a busy multi-lane intersection. In the foreground, a white van is partially visible on the left. The intersection has traffic lights and signs. In the background, there is a Sunoco gas station and other commercial buildings. The sky is overcast.

# POTENTIAL IMPROVEMENT OPTIONS



# Potential Improvement Options

- Pedestrian enhancements
- Access improvements
- Signal operations changes
- Roadway network changes
- Roadway improvements
- Innovative intersections



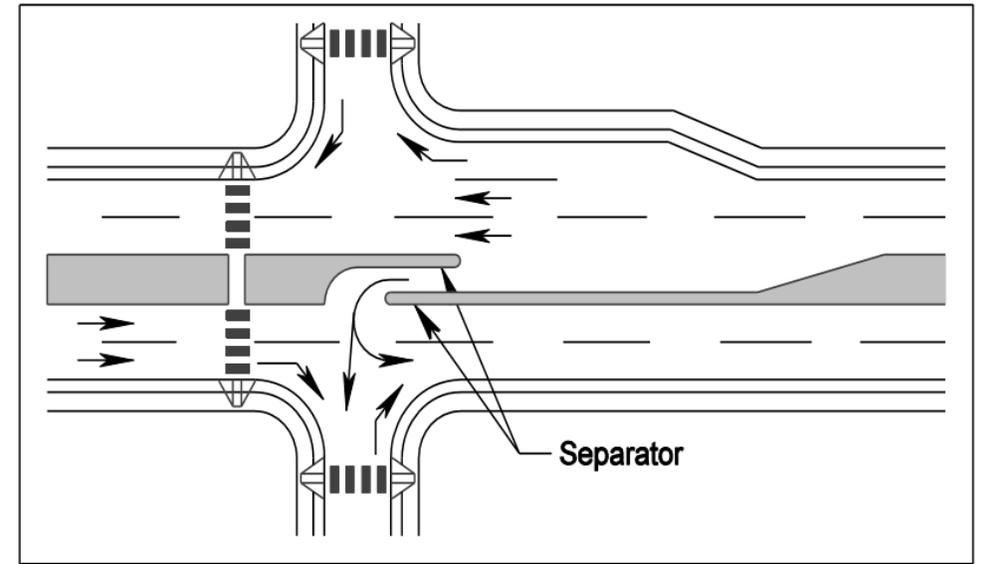
# Pedestrian Enhancements

- Signal-controlled mid-block crosswalks
- Refuge areas for pedestrians in medians
- Staggered crosswalks across Route 50
- Enhancements on intersection corners

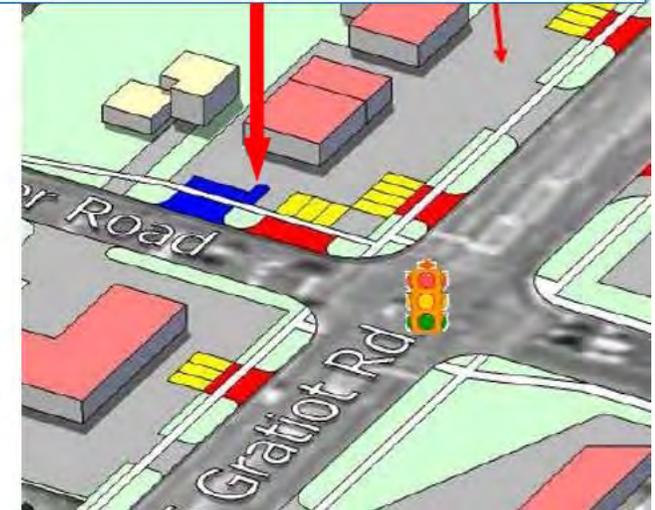
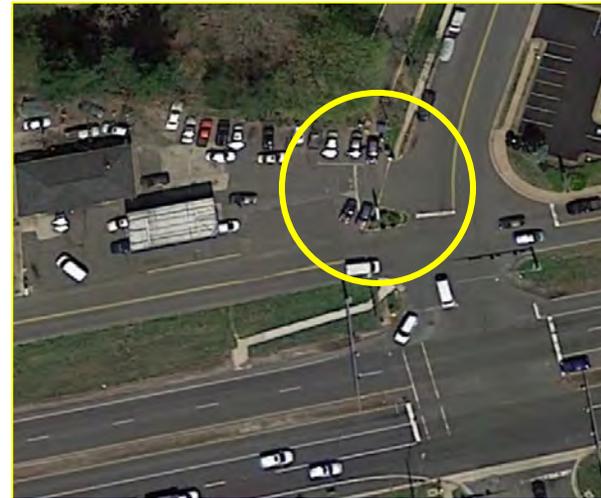


# Access Improvements

- Directional median openings
- Changes to access points
- Modifications to driveways on side road approaches at signals

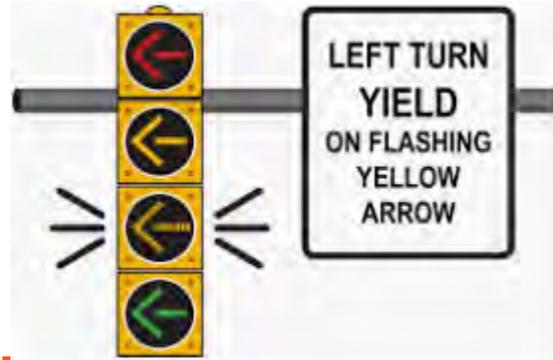


Three **red** entrances too close to intersection.  
Blue entrance away from intersection area.



# Signal Operations Changes

- Flashing yellow arrows
- Traffic signal phasing & timing changes
- Enhanced pedestrian signals
- Upgraded traffic monitoring
- Signal modifications
- Intelligent Transportation Systems (ITS)



Drivers		Pedestrians	
...will see this	...will do this	...will see this	...will do this
	Proceed with Caution		Push the Button to Cross
	Slow Down (Pedestrian has activated the push button)		Wait
	Prepare to Stop		Continue to Wait
	STOP! (Pedestrian in Crosswalk)		Start Crossing
	STOP! Proceed with Caution if Clear		Continue Crossing (Countdown Signal)
	Proceed if Clear		Push the Button to Cross



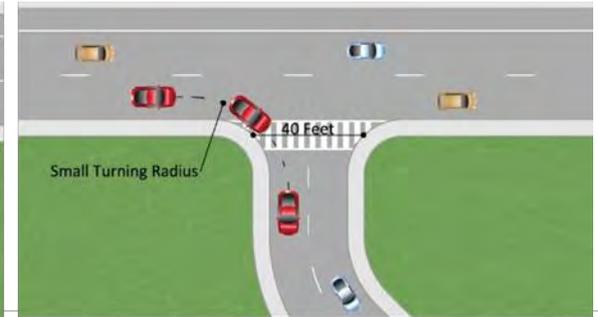
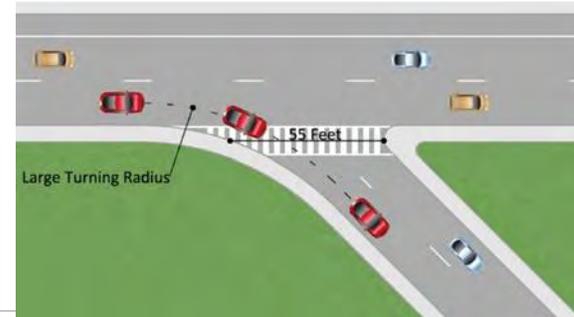
# Roadway Network Changes

- Convert frontage roads to one-way
- Prohibit left turn movements at selected intersections and redirect drivers to other intersections



# Roadway Improvements

- Channelizing islands on approach legs
- Islands to restrict frontage road movements
- Widened side street approaches to add lanes
- Modifications to radius at intersection corners
- Additional or extended turn lanes



# Innovative Intersections



## Median U-Turn (MUT)



- An MUT is also known as:
- Michigan left-turn intersection
  - Median U-turn crossover
  - Boulevard turnaround
  - Michigan loon
  - ThrU-turn intersection

Poplar Tent Road at Derita Road, Concord, N.C.



## Quadrant Roadway (QR)



State Route 4 at State Route 4 Bypass/Ross Road, Fairfield, Ohio



## Displaced Left Turn (DLT)



- A DLT is also known as:
- Continuous flow intersection
  - Crossover displaced left intersection

State Route 741 (North Springboro Pike) at Austin Boulevard, Miamisburg, Ohio



## Restricted Crossing U-Turn (RCUT)



## 5. NEXT STEPS

Allison Richter, PE, VDOT Northern Virginia District

# Next Steps

- Public Information Meeting material available for review in Study Webpage [www.virginiadot.org/route50fallschurchstudy](http://www.virginiadot.org/route50fallschurchstudy)
- Public provides comments:
  - Complete Online Survey: link available in the study webpage
  - Write or email your comments



- Comment Period Closes - October 31, 2019
- Second Public Information Meeting – Early 2020
- Study Completion - Spring 2020

An aerial photograph of a highway interchange with a tall skyscraper in the background. The text is overlaid on a semi-transparent white box.

# Thank you!

**Your participation and feedback is essential to developing a solution that works for all!**

***Project Website: [www.virginiadot.org/projects](http://www.virginiadot.org/projects)***